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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,568	02/15/2002	Nicholas P. Wilt	14917.0154USU2/MS300309.0	3290
27488	7590	04/04/2006		
MERCHANT & GOULD (MICROSOFT) P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			EXAMINER PAPPAS, PETER	
			ART UNIT	PAPER NUMBER

2628

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/077,568	Applicant(s) WILT ET AL.	
	Examiner Peter-Anthony Pappas	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/14/05 has been entered.

Claim Objections

2. Claims 12-13 and 17 are objected to because of the following informalities:

3. In regards to claim 12 the language "...components in the set: software executable, hardware, and firmware executable" (lines 2-3) is considered unclear, because it is not clear as to whether said language reads on [components comprising software executable and hardware and firmware executable] or [components comprising one or more software executable or hardware or firmware executable]. Appropriate correction is required.

4. In regards to claims 13 and 17 the language "...information in the set: per-pixel alpha, z-order, and color-key..." (lines 1-2 and line 2, respectively) is considered unclear, because it is not clear as to whether said language reads on [information comprising per-pixel alpha and z-order and color-key] or [information comprising one or more per-pixel alpha or z-order or color-key]. Appropriate correction is required.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 15 and 18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program’s functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program’s functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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8. Claim 11-1~~8~~ are rejected under 35 U.S.C. 102(b) as being anticipated by Engstrom et al. (U.S. Patent No. 5, 801, 717).

9. In regards to claim 11 Engstrom et al. teaches a display device interface and methods for managing surface memory through the use of surface structures. Surface structures can be implemented through the use of surface objects. A display device interface can be represented by a display device object, which creates and maintains additional objects such as surface objects, for the display device. To create a surface object a function is called in which a new surface object is created that is representative of a surface and the underlying surface memory that holds said surface. Flipping structures can be created in this manner and each represent a front buffer, and one or more back buffers (column 4, lines 26-67; column 18, lines 27-36). The front buffer typically holds a completed pixmap that is ready for use through the display device interface (column 14, lines 13-15). Surface structures can also include overlays, which refer to an image layer that is composited (merged) with another image layer or pixmap (column 12, lines 62-67; column 13, lines 1-14). The collection of surface objects, be it one or more, under the control of the display device object is considered the presentation surface set. It is noted that the primary presentation surface, presentation back buffer, overlay primary surface and overlay back buffer are all considered to be and/or include buffers for the storage of information. A primary presentation surface and overlay primary surface are considered front buffers, while presentation back buffer and overlay back buffer are considered back buffers.

Engstrom et al. teaches a display hardware 56, which includes hardware responsible for the display of 2D and 3D rendered graphics and animation, video, text and still images, application programs ("applications") 52, a display device interface 50 (with an optional hardware emulation layer 58) and a hardware abstraction layer (HAL) 54, which can be implemented in display hardware 56 (column 6, lines 41-67; column 7, lines 1-4; Fig. 2). Said display device interface 50 serves as an interface between said application programs and display hardware (column 8, lines 23-28). Elements 50 and 54 are considered the display interface driver. It is noted that said display hardware 56 and said HAL, which can be implemented on said display hardware 56 or via software, is considered responsible for compositing said plurality of image layers.

10. In regards to claim 12 Engstrom et al. teaches that the HAL can be a part of the display hardware 56 or can be implemented in software (column 6, lines 53-58).

Engstrom et al., however, fails to explicitly teach that the display interface driver comprises firmware executable components.

It would have been well known and obvious to one skilled in the art, at the time of the applicant's invention, that a display interface driver would include a firmware executable, because by doing so would allow for the display interface driver and any connected hardware, to be accessed through said display interfaced drive, to be utilized via any standard interface means and thus not require any additional modifications to be made so to allow for the use of said display interface drive and/or connected hardware.

11. In regards to claim 13 Engstrom et al. teaches the display device object can also create, in addition to a surface object, a palette object and a clipper object. A surface

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object can include a pixmap, an alpha buffer or a Z buffer (column 17, lines 33-42).

Each alpha value, in said alpha buffer, describes the degree to which a corresponding pixel (per-pixel) is transparent (column 12, lines 55-61). A palette object represents a color table (color-key) and can be attached to pixmap surfaces such as an overlay (column 17, lines 43-52; column 18, lines 1-12).

12. In regards to claim 14 Engstrom et al. teaches front and back buffers are linked to one another via an attachment link (column 14, lines 36-38; Fig 1, element 162). Pointers controlled by the display interface are used to swap data between front and back buffers (column 14, lines 39-56).

13. In regards to claim 15 Engstrom et al. teaches a computer system 20, which includes a CPU 28, memory system 30 and bus structure 32. Memory system 30 comprises of main memory 38 and secondary storage 40, wherein main memory includes RAM and ROM and secondary storage includes computer-readable medium such as floppy disks, hard drives, etc. (column 5, lines 38-64; column 6, lines 29-39). It is noted that said main memory and secondary storage are considered to provide the means by which computer program instructions can and are stored. The rationale disclosed in the rejection of claim 11 is incorporated herein.

14. In regards to claim 16 the rationale disclosed in the rejection of claim 15 is incorporated herein. The system of claim 15 is considered to be performing the method. Engstrom et al. teaches that the front buffer typically holds a completed pixmap that is ready for use through the display device interface (column 14, lines 13-15). Surface structures can also include overlays, which refer to an image layer that is

composited (merged) with another image layer or pixmap (column 12, lines 62-67; column 13, lines 1-14). Engstrom et al. further teaches that surface objects, which comprise surface structures, can be instantiated when more are required (column 14, lines 23-26; column 18, lines 37-47). It is this noted that if a given pixmap stored in a set of buffers is to be composited with overlay information stored in another set of buffers that both of said set of buffer must co-exist for some period of time.

15. In regards to claim 17 the rationale disclosed in the rejection of claim 13 is incorporated herein.

16. In regards to claim 18 the rationale disclosed in the rejection of claim 16 is incorporated herein.

Response to Arguments

17. Applicant's arguments in regards to the rejection of claims 11-18 under 35 U.S.C. § 103(a) have been considered, but are moot in view of the new ground(s) of rejection.

18. In response to Applicant's remarks in regards to amended claims 16 and 18 the Applicant is directed to the respective rejections above.

19. Applicant's arguments have been fully considered but are not deemed persuasive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter-Anthony Pappas whose telephone number is 571-272-7646. The examiner can normally be reached on M-F 9:00am-5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on 571-272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter-Anthony Pappas
Examiner
Art Unit 2628

PAP


ULKA CHAUHAN
SUPERVISORY PATENT EXAMINER